



PATENT
P56939

AMENDMENT IN THE CLAIMS

Please cancel claim 3 without disclaiming its subject matter, and amend claims 1, 4, 9 and 15 to read as follow:

1. (Currently Amended) A bias-T apparatus comprising:

a housing comprising an input connector to be connected to a ground base transceiver station and an output connector to be connected to an antenna, said input connector and said output connector integrally formed at opposite sides of the housing, the housing having a housing hole and a fixing hole, the housing hole being formed longitudinally in the housing, the fixing hole connected perpendicularly to the housing hole;

a center conductor inserted in the housing hole and including a first conductor having a reception tube and a second conductor having a conductor shaft with an outer surface shape corresponding to a inner surface shape of the reception tube, the conductor shaft being inserted in the reception tube to function as electrode plates of a capacitor, the first conductor and the second conductor having a first connector pin and a second connector pin, respectively, the first connector pin and the second connector pin being respectively inserted inside of the output connector and the input connector to enable electric connection of a signal between the input connector and the output connector; and

a fixing pin having a first end connected perpendicularly to the first conductor of the center conductor and a second end inserted in the fixing hole to fix the first conductor to the

housing and to supply direct current power from the second end to the output connector, the
direct current power being supplied to said first conductor through filter and said fixing pin.

2.(Original) The bias-T apparatus as claimed in claim 1, wherein the housing further
has a recess for receiving elements of the bias-T apparatus, the recess being formed at an upper
portion of the housing, which is located above and connected to the fixing hole.

3.(Canceled)

4.(Currently Amended) A bias-T apparatus comprising:
a housing including an input connector and an output connector, the housing having a
first hole and a second hole, the first hole being formed longitudinally in the housing, the second
hole being formed perpendicularly to the housing hole;
a center conductor mounted in the first hole to enable electric connection of a signal
between the input connector and the output connector, the center conductor comprising a first
conductor having a reception tube and a second conductor including a conductor shaft with an
outer surface shape corresponding to an inner surface shape of the reception tube, the conductor
shaft being inserted in the reception tube to function as electrode plates of a capacitor, the first
conductor and the second conductor having a first connector pin and a second connector pin,
respectively, the first connector pin and the second connector pin being respectively inserted
inside of the output connector and the input connector; and

13 a fixing pin connected perpendicularly to the first conductor of the center conductor
14 through said second hole to fix the first conductor to the housing and to supply direct current
15 power to the output connector, the direct current power being supplied to said first conductor
16 through filter and said fixing pin.

1 5.(Previously Presented) The bias-T apparatus as claimed in claim 4, wherein the
2 housing further has a recess for receiving elements of the bias-T apparatus, the recess being
3 formed at an upper portion of the second hole of the housing.

1 6.(Canceled)

1 7.(Canceled)

1 8. (Previously Presented) The bias-T apparatus of claim 1, wherein at least one of an
2 inner surface of the reception tube and an outer surface of the conductor shaft is anodized.

1 9.(Currently Amended) The bias-T apparatus of claim 4, wherein said center conductor
2 has a third hole, and said fixing pin screws said third hole through said second hole, the direct
3 current supplied to said first conductor and radio frequency signal are transmitted to an antenna
4 tower, the radio frequency signal is not outputted to said fixing pin to which the direct current
5 power is applied, accommodated through an impedance of said fixing pin being indefinite

6 through a coil constructing said filter.

1 10.(Canceled)

1 11.(Previously Presented) The bias-T apparatus of claim 4, wherein at least one of an
2 inner surface of the reception tube and an outer surface of the shaft is anodized.

1 12.(Previously Presented) The bias-T apparatus of claim 4, wherein said center
2 conductor has a first connector pin to be connected to a ground base transceiver station through
3 said input connector and a second connector pin to be connected to an antenna through said
4 output connector.

1 13. (Previously Presented) The bias-T apparatus of claim 12, wherein said first connector
2 pin is removably mounted on said first conductor.

1 14.(Previously Presented) The bias-T apparatus as claimed in claim 12, wherein the
2 housing further has a recess for receiving elements of the bias-T apparatus, the recess being
3 formed at an upper portion of the second hole of the housing.

1 15.(Currently Amended) The bias-T apparatus of claim 14, wherein said recess is formed
2 to accommodate [[an]] said electromagnetic interference (EMI) filter including coils and

3 dielectric materials.

1 16. (Previously Presented) The bias-T apparatus of claim 14, wherein said recess is
2 formed to accommodate a gas tube arrester and diodes for protecting the ground base transceiver
3 station from surge voltage introduced from the output connector.

1 17. (Previously Presented) The bias-T apparatus of claim 14, wherein said center
2 conductor has a third hole, and said fixing pin screws said third hole through said second hole.